size of a shilling. The presentation was natural; the pains trifling and ineffectual. He waited two hours; and, as no progress was being made, he gave a dose of ergot, and continued in attendance another hour. But no increase of pains in force or frequency took place; and he left for his surgery and to see other patients, promising to return; and said that, if wanted before doing so, he was to be sent for. He heard no more of the case until afternoon, and then drove down to Mockbeggar, taking his forceps with him. He was then told that no pains of any consequence had come on till the middle of the day, since which they had been steadily increasing in force and frequency. The os was now fully dilated, and the head at the brim of the pelvis. He went down stairs, determining to give more time for the natural termination of a case which now seemed to be going on favourably, leaving two female neighbours with the patient. In about an hour he was called hastily, and found the woman fainting, blood issuing from the vagina; the head higher than it had been, and rapidly receding. The bystanders said that there had been a violent pain, during which they heard a noise as if something had given way."

When seen by Dr. D. at eight o'clock in the evening the patient was "in a state of great prostration, and evincing signs of severe shock to the nervous system. She was quite sensible; the pulse was quick and fluttering; the breathing short and hurried; the skin cold, and covered with perspiration, which stood in large drops on her face and forehead. On placing the hand on the abdomen, which was very tender, the outline of a fœtus could be distinctly felt lying beneath the parietes; the uterus, contracted to the size of the fœtal head, was evident; and on examination *per vaginam*, it was clear that the uterus was emptied of what it contained."

On consultation it was decided to resort to gastrotomy. In consequence of delay in obtaining instruments and chloroform, the operation was not performed until 4½ hours after the rupture had taken place. The patient recovered most favourably.

On the 9th of Aug. 1863, Dr. D. attended her in a miscarriage and again on the 11th of June, 1864. On the 23d of July, 1865, she was delivered by Dr. D. of a fine living male child, and she made a rapid convalescence.

43. *Extra-Uterine Fœtation.*—Dr. J. Braxton Hicks read before the Obstetrical Society of London a case of this in which he had detected a fœtus alive in the recto-vaginal pouch of peritoneum. Considering its advance to maturity in that position highly dangerous throughout its development and after, he endeavoured to arrest its growth by powerful galvanic currents. This was repeated without effect. It was then determined to pass a trocar into the fœtus, which was done per vaginam readily without any bleeding. The fœtal movements ceased next day; but vomiting, partly from the chloroform given, continued very violent till about the fifth day, when, sudden collapse supervening, the patient died on the sixth day after the operation. The post-mortem examination showed that hemorrhage was the immediate cause of death, owing to slight separation of the upper part of placental attachment to the exterior of the uterus, but none whatever occurred at the seat of puncture. The examination also showed a curious fact—namely, that the cyst in which the fœtus originally was formed had ruptured, and that the ovum entire had escaped into the recto-vaginal pouch, and continued to live and grow, the ovular membranes filling entirely the pouch, the placenta being attached to the back of the uterus. On opening the original cyst from above, the ovular membranes were seen through the rupture in the cyst. Dr. Hicks having requested the assistance of the President in elucidating these points, and in giving a report, the report was then read, confirming the above facts, and endeavouring to explain the mode of occurrence.—*Med. Times & Gaz.*, Nov. 11, 1865.

44. *Intra-Uterine Variola.*—M. Legros presented to the Biological Society of Paris a variolous fœtus, with the following history: On May 18th, a woman in the Hôtel Dieu was prematurely delivered of a fœtus aged apparently about five months, which was covered with pustules of smallpox. The mother had distinct marks of vaccination, and had never had smallpox. About six months

previously, she had had connection with a man who was convalescent from variola. No exposure of the mother to contagion could be traced. This case, M. Legros observed, raised the question whether the father could have communicated the smallpox at the moment of fecundation, the disease remaining for five months in a state of latency. This theory he believes to be supported by the facts that, when a pregnant woman has smallpox, the fœtus is sometimes not attacked till some time after the recovery of the mother; and that, in a child of a syphilitic father, the disease in some cases does not show itself in the infant until several days or even weeks after birth.—*Gazette Méd. de Paris*, Aug. 5, 1865.

45. *Retention of Urine in the Fœtus.*—M. DEPAUL related to the Société de Biologie a case in which a woman was delivered of an eight months' child presenting a great enlargement of the abdomen; there was very little amniotic fluid. The child died soon after being born. The bladder was about 4½ inches long and 2¾ wide, and was full of urine. The ureters were also irregularly enlarged, resembling at first sight the intestinal convolutions; and contained urine. The kidneys, especially the left, were also much distended; they were transformed into cysts with thin walls, filled also with urine. The cause of this distension was found to be an imperforate state of the urethra, at the junction of the muscular and prostatic portions. More than a pint of urine was removed. —*Gaz. Méd. de Paris*, July 15, 1865.

HYGIENE.

46. *Ozone.*—Dr. B. W. RICHARDSON, in a paper read before the British Association for the advancement of science at its late meeting, observed that the following are the reliable facts known up to this time respecting ozone. 1. Ozone in a natural state is always present in the air in minute proportions; viz., one part in ten thousand. 2. It is destroyed in large towns, and with special rapidity in crowded, close, and filthy localities. 3. Ozone gives to oxygen properties which enable it to support life. In this respect it acts like heat; its effects are destroyed by great heat. 4. Ozone diffused through air in minute quantities produces, on inhalation, distinct symptoms of acute catarrh. 5. When animals are subjected to ozone in large quantities, the symptoms produced, at a temperature of 75°, are those of inflammation of the throat and mucous membranes generally, and at last congestive bronchitis, which in carnivorous animals are often rapidly fatal. 6. When animals are subjected for a long period to ozone in small proportions, the agent acts differently, according to the animal. The carnivora die, after some hours, from disorganization of the blood separation; but the herbivora will live for weeks, and will suffer from no acute disease. 7. The question whether the presence of ozone in the air can produce actual disease, must be answered cautiously. Science has yet no actual *demonstrative* evidence on the point. But the facts approach to demonstration that catarrh is induced by this agent. All else is as yet speculative. 8. During periods of intense heat of weather, the ozone loses its active power. 9. On dead organic matter undergoing putrefaction, ozone acts rapidly; it entirely deodorizes by breaking up the ammoniacal products of decomposition. At the same time, it hastens the organic destruction. 10. There is an opposite condition of air in which the oxygen is rendered negative in its action, as compared with the air when it is charged with ozone. Air can thus be rendered negative by merely subjecting it, over and over again, to animals for respiration. The purification of such air from carbonic acid and other tangible impurities, does not render it capable of supporting healthy life; but ozone restores the power. In a negative condition of air, the purification of the organic matter is greatly modified, and the offensive products are increased. Wounds become unhealthy,